PATENT COOPERATION TREATY



PCT



INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| Applicant's or agent's file reference | (Form PCT/ISA/ | of Transmittal of International Search Report 220) as well as, where applicable, item 5 below. |
|--|--|---|
| 525400.320 | ACTION | |
| International application No. | International filing date (day/month/year) | (Earliest) Priority Date (day/month/year) |
| PCT/US 03/21967 | 11/07/2003 | 19/07/2002 |
| Applicant | No. of the state o | |
| | | |
| OSTEOTECH, INC. | | |
| - | | |
| | is been prepared by this International Searching Aut eing transmitted to the International Bureau. | thority and is transmitted to the applicant |
| | _ | · |
| This International Search Report co | | |
| X It is also accompani | ied by a copy of each prior art document cited in this | s report. |
| Basis of the report | | |
| a. With regard to the language | e, the international search was carried out on the ba ed, unless otherwise indicated under this item. | asis of the international application in the |
| the international sea | arch was carried out on the basis of a translation of | the international application furnished to this |
| b. With regard to any nucleoti | ide and/or amino acid sequence disclosed in the in | nternational application, the international search |
| was carried out on the basis | s of the sequence listing : ernational application in written form. | |
| = | he international application in computer readable for | m |
| | ently to this Authority in written form. | |
| | ently to this Authority in computer readble form. | |
| | he subsequently furnished written sequence listing of | does not go beyond the disclosure in the |
| | ation as filed has been furnished. | |
| the statement that the furnished | he information recorded in computer readable form i | is identical to the written sequence listing has been |
| 2. X Certain claims wer | re found unsearchable (See Box I). | |
| 3. Unity of invention | is lacking (see Box II). | |
| <u> </u> | | |
| 4. With regard to the title, | | |
| X the text is approved | as submitted by the applicant. | |
| the text has been es | stablished by this Authority to read as follows: | |
| | | |
| | · | |
| . | | |
| 5. With regard to the abstract, | | |
| | as submitted by the applicant. | |
| the text has been es within one month fro | stablished, according to Rule 38.2(b), by this Authori om the date of mailing of this international search rep | ity as it appears in Box III. The applicant may, port, submit comments to this Authority. |
| | e published with the abstract is Figure No. | 24 |
| as suggested by the | | None of the figures. |
| | ant failed to suggest a figure. | Liji Norie of the figures. |
| = | better characterizes the invention. | |
| | | |

International Application No 03/21967

A. CLASSIFICATION OF SUBJECT PRINTER IPC 7 A61B17/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

| C. DOCUM | ENTS CONSIDERED TO BE RELEVANT | |
|------------|---|------------------------|
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | WO 01 62166 A (DERIDDER STEVEN D ;SDGI HOLDINGS INC (US); LANGE ERIC C (US); MCGA) 30 August 2001 (2001-08-30) figures 18A,18B,32,33 page 18, line 26 -page 19, line 10 | 1-5, 8-14, 56-58 |
| X | WO 02 34144 A (LIU MINGYAN ; JOSSE LOIC (FR); SDGI HOLDINGS INC (US); FOLEY KEVIN) 2 May 2002 (2002-05-02) | 48 |
| Α | abstract; figures 2-5 page 8, line 27-30 | 1,10-14, 29,50,56 |
| A | US 4 743 256 A (BRANTIGAN JOHN W) 10 May 1988 (1988-05-10) abstract; figure 13 | 1,29,48, 50,56 |
| | -/ | |

| * Trunher documents are listed in the continuation of box C: | χ - Patent family members are listed in annex; |
|---|---|
| *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed | 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family |
| Date of the actual completion of the international search | Date of mailing of the international search report |
| 21 October 2003 | 29/10/2003 |
| Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 | Authorized officer |
| NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 | Macaire, S |
| | l |

1

International Application No. PCT/US 03/21967

| | RED TO BE RELEVANT | |
|------------|--|-----------------------|
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| 1 | US 5 571 109 A (BERTAGNOLI RUDOLF) 5 November 1996 (1996-11-05) abstract; figure 3 column 8, line 52 -column 9, line 4 | 1,29,48, 50,56 |
| \ | US 2002/068941 A1 (SEME STEVEN J ET AL) 6 June 2002 (2002-06-06) abstract; figures 16-20 | 1,29,48, 50,56 |
| | www. | |
| | | |
| | | |
| | | · |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | · |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | · |
| | | |
| | | |
| | | |

International application No. PCT/US 03/21967

| Box I | Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet) |
|-----------|--|
| This Inte | ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: |
| 1. X | Claims Nos.: 43–47 because they relate to subject matter not required to be searched by this Authority, namely: |
| | Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery |
| 2. | Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: |
| 3. 🗌 | Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a). |
| Box II | Observations where unity of invention is lacking (Continuation of item 2 of first sheet) |
| This Inte | ernational Searching Authority found multiple inventions in this international application, as follows: |
| | |
| | |
| | |
| 1. | As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims. |
| 2. | As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. |
| . 3 | As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: |
| 4. | No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: |
| Remark | The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees. |

Information on patent family members

International Application No
PSI /US 03/21967

| Patent document cited in search report | | Publication date | | Patent family member(s) | Publication date |
|--|----|------------------|----|-------------------------|------------------|
| WO 0162166 | A | 30-08-2001 | AU | 4161201 A | 03-09-2001 |
| | | | CA | 2395390 A1 | 30-08-2001 |
| | | | EΡ | 1259175 A2 | 27-11-2002 |
| | | | JP | 2003523257 T | 05-08-2003 |
| | | | WO | 0162166 A2 | 30-08-2001 |
| | | | US | 2003032962 A1 | 13-02-2003 |
| WO 0234144 | Α | 02-05-2002 | US | 6599291 B1 | 29-07-2003 |
| | | | AU | 9697501 A | 06-05-2002 |
| | | | CA | 2426019 A1 | 02-05-2002 |
| | | | EP | 1328200 A1 | 23-07-2003 |
| | | | WO | 0234144 A1 | 02-05-2002 |
| US 4743256 | Α | 10-05-1988 | US | 4834757 A | 30-05-1989 |
| | | | US | 4878915 A | 07-11-1989 |
| US 5571109 | Α | 05-11-1996 | DE | 4328690 A1 | 02-03-1995 |
| | | | ΑT | 180157 T | 15-06-1999 |
| | | | CA | 2129938 A1 | 27-02-1995 |
| • | | | DE | 59408271 D1 | 24-06-1999 |
| | | | EP | 0641547 A2 | 08-03-1995 |
| US 2002068941 | A1 | 06-06-2002 | WO | 0203867 A2 | 17-01-2002 |
| | | | WO | 02065957 A2 | 29-08-2002 |
| | | | US | 2003028197 A1 | 06-02-2003 |
| | | | AU | 7174901 A | 21-01-2002 |